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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,753	11/28/2001	Hiroyuki Ozawa	011589	8648

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EXAMINER

CLARK, SHEILA V

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/994,753

Applicant(s)
Ozawa et al

Examiner
Sheila V. Clark

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2815



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 12, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8, and 10-13 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 5, and 10-13 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 5 recite an exclusion of power supply wires (claim 4, line 6 and claim 5, line 6- "wires are signal wires excluding power supply wires") but the claim fails to introduce power supply wires as part of the wires. To provide clarity the claims should recite that the wires provided on the first layer are both signal and power supply wires. Signal wires and power supply wires are distinct and therefore "signal wires cannot exclude power supply wires".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ushiku et al.

Ushiku et al in figure 7 teaches a plurality of layers where dummy patterns 30 are formed between upper and lower pattern in non overlapping positions and therefore not directly above or below positions of the wires of the first layer.

Figure 6 shows dummy pattern 70 having a different size and shape.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

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(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).
Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Bothra et al.

Bothra et al shows in figure 3 and 5 dummy layers 226 formed in non-overlapping relationship to active regions of the substrate and in non-overlapping relationship to the active wiring network 216.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Shin.

Shin shows dummy patterns formed in a square shape (see col. 3, lines52-including square) different than a wiring layer 21. Said dummy pattern having different sizes are shown in figure 5.

Claims 1-3, 6, 8 are rejected.

Claims 4, 5 are considered allowable upon clarification and resolution of the 35 U.S.C. 112, second paragraph issue addressed above.

Claims 10-13 are considered allowable over the prior art of record along with the incorporation of claim language that will be suggested by the Examiner if the applicant chooses to call, to provide clarity to the claims.

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Applicant's arguments filed 7-21-2003 have been fully considered but they are not persuasive. The claims as they are very broadly recited are deemed to be taught by the prior art cited in the rejection. Applicant argues that Ushiku teaches dummy patterns formed on the same layer as the patterns. With upper layer patterns formed on the dummy patterns which is argued is not what is recited in the instant claims. The claims however fail to provide much structural description relative to the wire arrangement and interconnection. Claim 1 for example only recites wire are formed on a first layer and dummy wires on the second layer different from the first. Contrary to applicant's arguments the claims fail to recite that first layer may not contain dummy wire only that the first layer contains "wires" recited broadly. These wires have not been characterized. Dummy wires formed on a different layer than other wires is clearly taught by Ushiku.

The language recited in the claims fails to be characteristics of enough specific structure to distinguish them from what is well known in this art. The prior art references are deemed to continue to clearly teach the features of the invention as they are broadly recited. Contrary to applicant's arguments Ushiku et al teaches in for example col. 6, lines 15-22 that the dummy patterns arranged where no interconnection exists and vacant regions between interconnection layers. Figure 7 shows no overlap. Further claim one of the instant invention has grammatical issues (I. Line 9, "that avoids areas overlapping positions") therefore not rendering clear what is or is not overlapping (i.e the areas or the arrangement, or what?). The features of clam 8 are also deemed to be clearly taught by Shin who also teaches use of square dummy wires.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner S.V. Clark whose telephone number is (703) 308-4924.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee, can be reached on (703) 308-1690. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

August 23, 2003



SHEILA V. CLARK
PRIMARY EXAMINER